

1. A method for generating cool air, comprising:

contacting a wastewater with a superabsorbent polymer;

allowing the superabsorbent polymer and the wastewater to interact until substantially all

5 of the wastewater is absorbed by the superabsorbent polymer; and

evaporating the water from the superabsorbent polymer.

2. The method of claim 1 wherein the evaporating step is performed in the presence of a heat exchanger.

3. The method of claim 1 wherein the superabsorbent polymer is an organic cross-linked
10 acrylamide/acrylic acid copolymer.

4. The method of claim 1 wherein the superabsorbent polymer is added to the wastewater in an amount of from about 2 grams to about 200 grams per liter of wastewater.

5. The method of claim 1 wherein evaporating the water is facilitated by the use of a fan.

6. An apparatus for treating wastewater comprising:

a floor;

two side walls connected to the floor;

a top connected to the walls, the top having perforations;

5 a superabsorbent polymer positioned above the top, the polymer having absorbed wastewater;

an air moving device for moving air through the perforations and across the polymer such that water from the wastewater undergoes an evaporation process.

10 7. The apparatus of claim 6 wherein the evaporation process has a cooling effect.

8. The apparatus of claim 7 further comprising a first air passageway for routing the air through the top.

9. The apparatus of claim 8 further comprising a second air passageway for collecting cooled air.

15 10. The apparatus of claim 9 further comprising a plenum for distributing cooled air.

11. The apparatus of claim 10 wherein the wastewater is produced by an animal rearing facility.

12. The apparatus of claim 11 contiguous with the animal rearing facility.

13. A method for generating cool air utilizing superabsorbent polymers, comprising:

providing a perforated top;

placing a superabsorbent polymer that has absorbed water in a space above the
top device; and

5 forcing air through the top across the polymer such that the absorbed water is
evaporated.

14. The method of claim 13 further comprising collecting cool air from a passageway
adjacent the top.

15. The method of claim 13 wherein the superabsorbent polymer is an organic cross-
10 linked acrylamide/acrylic acid copolymer.

16. The method of claim 13 wherein the water is a wastewater.

17. The method of claim 16 wherein the wastewater is a wastewater from an animal
rearing facility.

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